

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An electro-optical device, comprising:

a plurality of scanning lines;

a plurality of data lines;

a plurality of electro-optical elements; and

a plurality of pixel circuits to drive the plurality of electro-optical elements,

each of the plurality of pixel circuits having a first transistor and a storage capacitor to store a

data signal supplied via a data line among the plurality of data lines and the first transistor,

~~a plurality of pixels, each of the plurality of pixels having an electro-optical element,~~ brightness of each of the electro-optical elements being set for each of a plurality of sub-frames ~~based on the data signal stored in the storage capacitor,~~ which constitute one frame of a period and each have a predetermined period, so that at least two levels of brightness can be set for one frame; and

~~a sub-frame having a longest period among the plurality of sub-frames being divided into at least two allocated sub-frames, and at least a sub-frame among the plurality of sub-frames having a period shorter than the allocated sub-frames being disposed between the at least two allocated sub-frames~~

~~the plurality of sub-frames, which are set for a series of electro-optical elements among the plurality of electro-optical elements, the series of electro-optical elements being connected to at least two scanning lines, end substantially simultaneously.~~

2. (Currently Amended) The electro-optical device according to Claim 1,

a sum of the period of the at least two allocated sub-frames being set to 2^n times as long as a sub-frame having a shortest period among n (n denotes a natural number)

sub-frames of the plurality of sub-frames, wherein n is a number of sub-frames excluding the at least two allocated sub-frames.

3. (Previously Presented) The electro-optical device according to Claim 2, a sub-frame having a longest period among the plurality of sub-frames, excluding the at least two allocated sub-frames, being half as long as the sub-frame having the longest period among the plurality of sub-frames.

4. (Previously Presented) The electro-optical device according to Claim 1, the two allocated sub-frames not being arranged consecutively in one frame of a period.

5. (Currently Amended) An electro-optical device, comprising:
a plurality of scanning lines;
a plurality of data lines;
a plurality of electro-optical elements; and
a plurality of pixel circuits to drive the plurality of electro-optical elements,
each of the plurality of pixel circuits having a first transistor and a storage capacitor to store a
data signal supplied via a data line among the plurality of data lines and the first transistor,
~~a plurality of pixels, each of the plurality of pixels having an electro-optical~~
~~element, brightness of the electro-optical element being set for each of a plurality of sub-~~
~~frames based on the data signal stored in the storage capacitor, which constitute one frame of~~
~~a period and each have a predetermined period, so that at least two levels of brightness can be~~
~~set for one frame, and lengths of the plurality of sub-frames excluding a sub-frame having a~~
~~longest period being set to a period in binary weighted; and~~
~~the sub-frame having the longest period among the plurality of sub-frames~~
~~being divided into at least two allocated sub-frames, and at least a sub-frame among the~~

~~plurality of sub-frames having a period shorter than the allocated sub-frames being disposed between the at least two allocated sub-frames~~

the plurality of sub-frames, which are set for a series of electro-optical elements among the plurality of electro-optical elements, the series of electro-optical elements being connected to at least two scanning lines, end substantially simultaneously.

6. (Previously Presented) The electro-optical device according to Claim 5,
the two allocated sub-frames not being arranged consecutively in one frame of a period.

7. (Currently Amended) An electro-optical device, comprising:
a plurality of scanning lines;
a plurality of data lines;
a plurality of electro-optical elements; and
a plurality of pixel circuits to drive the plurality of electro-optical elements,
each of the plurality of pixel circuits having a first transistor and a storage capacitor to store a data signal supplied via a data line among the plurality of data lines and the first transistor,
a plurality of pixels, each of the plurality of pixels having an electro-optical element, brightness of the electro-optical element being set for each of a plurality of sub-frames, which constitute one frame of a period and each have a predetermined period,
a sub-frame having a longest period among the plurality of sub-frames being divided into at least two allocated sub-frames, and at least a sub-frame among the plurality of sub-frames having a period shorter than the allocated sub-frames, being disposed between the at least two allocated sub-frames, and
a sub-frame having a longest period among n (n denotes a natural number)
sub-frames of the plurality of sub-frames, excluding the at least two allocated sub-frames,

being set to 2^{n-1} times as long as a sub-frame having a shortest period among the n sub-frames, and

brightness for the one frame can be set to 2^{n+1} levels, and
the plurality of sub-frames, which are set for a series of electro-optical elements among the plurality of electro-optical elements, the series of electro-optical elements being connected to at least two scanning lines, end substantially simultaneously.

8. (Previously Presented) The electro-optical device according to Claim 7,
the two allocated sub-frames not being arranged consecutively in one frame of
a period.

9-10. (Canceled)

11. (Currently Amended) An electro-optical device, comprising:
a plurality of scanning lines;
a plurality of data lines;
a plurality of electro-optical elements; and
a plurality of pixel circuits to drive the plurality of electro-optical elements,
each of the plurality of pixel circuits having a first transistor and a storage capacitor to store a
data signal supplied via a data line among the plurality of data lines and the first transistor,
a plurality of pixels, each of the plurality of pixels having an electro-optical element,
brightness of the electro-optical element being set for each of a plurality of sub-
frames, which constitute one frame of a period and each have a predetermined period, so that
at least 2^n (n denotes a natural number) levels of brightness can be set for one frame,

a number of the plurality of sub-frames being $n + 1$ or more, and
a sub-frame having a longest period among the plurality of sub-frames being
divided into at least two allocated sub-frames, and at least a sub-frame among the plurality of

~~sub-frames having a period shorter than the allocated sub-frames being disposed between the at least two allocated sub-frames~~

the plurality of sub-frames, which are set for a series of electro-optical elements among the plurality of electro-optical elements, the series of electro-optical elements being connected to at least two scanning lines, end substantially simultaneously.

12. (Previously Presented) The electro-optical device according to Claim 11, a sub-frame having a longest period among the plurality of sub-frames, excluding the at least two allocated sub-frames, being 2^{n-1} times as long as a sub-frame having a shortest period.

13. (Currently Amended) An electro-optical device, which is capable of setting at least two levels of brightness for one frame, the electro-optical device comprising:

a plurality of scanning lines;

a plurality of data lines;

a plurality of electro-optical elements; and

a plurality of pixel circuits to drive the plurality of electro-optical elements, each of the plurality of pixel circuits having a first transistor and a storage capacitor to store a data signal supplied via a data line among the plurality of data lines and the first transistor,

electro-optical elements that are controlled to take either an ON state or an OFF state based on gray scale data for each of a plurality of sub-frames, which constitute one frame of a period and each have a predetermined period, and at least two of the plurality of sub-frames being controlled to always concurrently take either the ON state or the OFF state; and

a sub-frame having a longest period among the plurality of sub-frames being divided into at least two allocated sub-frames, and ~~at least a sub-frame among the plurality of sub-frames having a period shorter than the allocated sub-frames being disposed between the at least two allocated sub-frames~~

the plurality of sub-frames, which are set for a series of electro-optical elements among the plurality of electro-optical elements, the series of electro-optical elements being connected to at least two scanning lines, end substantially simultaneously.

14. (Previously Presented) The electro-optical device according to Claim 13,

the at least two allocated sub-frames having the same period of length.

15. (Previously Presented) The electro-optical device according to Claim 13,

the at least two allocated sub-frames not being arranged consecutively in one frame of a period.

16-19. (Canceled)

20. (Currently Amended) The electro-optical device according to Claim 19 Claim 1, the ~~current driven element~~ electro-optical elements being an EL element.

21. (Original) The electro-optical device according to Claim 20, the EL element having a light-emitting layer formed of an organic material.

22. (Currently Amended) A method of driving an electro-optical device that includes a plurality of scanning lines; a plurality of data lines; a plurality of electro-optical elements; and a plurality of pixel circuits to drive the plurality of electro-optical elements, each of the plurality of pixel circuits having a first transistor and a storage capacitor to store a data signal supplied via a data line among the plurality of data lines and the first transistor-a plurality of pixels, each of the plurality of pixels having an electro-optical element, the method comprising:

setting brightness of the electro-optical element for each of a plurality of sub-frames based on the data signal stored in the storage capacitor, which constitute one frame of period and each have a predetermined period, so that at least two levels of brightness can be set for one frame,

dividing a sub-frame having a longest period among the plurality of sub-frames into at least two allocated sub-frames, and

~~disposing at least a sub-frame among the plurality of sub-frames having a period shorter than the allocated sub-frames between the at least two allocated sub-frames~~
~~setting a plurality of sub-frames, which are set for a series of electro-optical elements among the plurality of electro-optical elements, the series of electro-optical elements being connected to at least two scanning lines, end substantially simultaneously.~~

23. (Currently Amended) A method of driving an electro-optical device that includes a plurality of scanning lines; a plurality of data lines; a plurality of electro-optical elements; and a plurality of pixel circuits to drive the plurality of electro-optical elements, each of the plurality of pixel circuits having a first transistor and a storage capacitor to store a data signal supplied via a data line among the plurality of data lines and the first transistor-a plurality of pixels, each of the plurality of pixels having an electro-optical element, the method comprising:

setting brightness of the electro-optical elements for each of a plurality of sub-frames based on the data signal stored in the storage capacitor, which constitute one frame of period and each have a predetermined period, so that at least two levels of brightness can be set for one frame, lengths of the plurality of sub-frames excluding a sub-frame having a longest period being set in binary load,

dividing the sub-frame having the longest period among the plurality of sub-frames into at least two allocated sub-frames, and

~~disposing at least a sub-frame among the plurality of sub-frames having a period shorter than the allocated sub-frames between the at least two allocated sub-frames~~

setting a plurality of sub-frames, which are set for a series of electro-optical elements among the plurality of electro-optical elements, the series of electro-optical elements being connected to at least two scanning lines ending substantially simultaneously.

24. (Currently Amended) A method of driving an electro-optical device that includes a plurality of scanning lines; a plurality of data lines; a plurality of electro-optical elements; and a plurality of pixel circuits to drive the plurality of electro-optical elements, each of the plurality of pixel circuits having a first transistor and a storage capacitor to store a data signal supplied via a data line among the plurality of data lines and the first transistor-a plurality of pixels, each of the plurality of pixels having an electro-optical element, the method comprising:

setting brightness of the electro-optical elements for each of a plurality of sub-frames based on the data signal stored in the storage capacitor, which constitute one frame of period and each have a predetermined period,

dividing a sub-frame having a longest period among the plurality of sub-frames into at least two allocated sub-frames,

~~disposing at least a sub-frame among the plurality of sub-frames having a period shorter than the allocated sub-frames between the at least two allocated sub-frames;~~

setting a sub-frame having a longest period among n (n denotes a natural number) sub-frames of the plurality of sub-frames, excluding the at least two allocated sub-frames, to 2^{n-1} times as long as a sub-frame having a shortest period of the n sub-frames, and

setting brightness for one frame to 2^{n+1} levels, and

setting a plurality of sub-frames, which are set for a series of electro-optical elements among the plurality of electro-optical elements, the series of electro-optical elements being connected to at least two scanning lines, end substantially simultaneously.

25. (Canceled)

26. (Currently Amended) A method of driving an electro-optical device that includes a plurality of scanning lines; a plurality of data lines; a plurality of electro-optical elements; and a plurality of pixel circuits to drive the plurality of electro-optical elements, each of the plurality of pixel circuits having a first transistor and a storage capacitor to store a data signal supplied via a data line among the plurality of data lines and the first transistor-a plurality of pixels, each of the plurality of pixels having an electro-optical element, the method comprising:

setting brightness of the electro-optical element for each of a plurality of sub-frames based on the data signal stored in the storage capacitor, which constitute one frame of a period and each have a predetermined period, so that at least 2^n (n denotes a natural number) levels of brightness are set for one frame with the number of the plurality of sub-frames being $n + 1$ or more,

dividing a sub-frame having a longest period among the plurality of sub-frames into at least two allocated sub-frames,

~~disposing at least a sub-frame among the plurality of sub-frames having a period shorter than the allocated sub-frames between the at least two allocated sub-frames,~~

always concurrently putting the at least two allocated sub-frames into a set state or a non-set state, and

setting brightness for one frame to 2^n levels, and

~~setting a plurality of sub-frames, which are set for a series of electro-optical elements among the plurality of electro-optical elements, the series of electro-optical elements being connected to at least two scanning lines, end substantially simultaneously.~~

27-29. (Canceled)

30. (Original) An electronic apparatus, comprising:

the electro-optical device according to Claim 1.